

**Amendments to the Claims**

1. *(Currently Amended)* A boost converter having a capacitive mode and an inductive mode of operation, and a selection terminal ( $V_{in}$ ) for selecting the capacitive or inductive mode.
2. *(Currently Amended)* The boost converter of claim 1, wherein the selection terminal is coupled to a voltage source ( $V_{in}$ ) in the capacitive mode and wherein the selection terminal is coupled to ground ( $Gnd$ ) in the inductive mode.
3. *(Currently Amended)* The boost converter of ~~claim 1 or 2~~claim 1, further comprising switching means ( $S1, S2, S3, S4$ ) for performing a switching sequence, the switching sequence comprising an idle phase, an energy storage phase and an energy transfer phase.
4. *(Currently Amended)* The boost converter of claim 3, the switching means having a set of switches ( $S1, S2, S3, S4$ ) for the capacitive mode and a sub-set ( $S2, S4$ ) of the set of switches for the inductive mode.
5. *(Currently Amended)* The boost converter of ~~claim 3 or 4~~claim 3, the switching means comprising counter means for receiving a clock signal.
6. *(Currently Amended)* The boost converter of ~~any one of the preceding claims~~claim 1, further comprising a first comparator ( $104$ ) being coupled to the selection terminal for determining a selection of the capacitive or inductive mode.
7. *(Currently Amended)* The boost converter of ~~any one of the preceding claims~~claim 1, further comprising a second comparator ( $106$ ) for comparing a voltage drop over an external resistive element ( $R_{led}$ ) and a voltage reference ( $V_{ref}$ ) in order to trigger a transition from an idle phase to an energy storage phase.
8. *(Currently Amended)* A power supply comprising:
  - means for receiving a battery ( $108$ );

- a boost converter (~~100~~) having a capacitive mode and an inductive mode, and at least first (~~V<sub>in</sub>~~) and second (~~S<sub>wn</sub>~~) terminals,  
wherein the battery is coupled to the first terminal for selection of the capacitive mode and the battery is coupled to the second terminal for selection of the inductive mode.

9. (*Currently Amended*) A method of DC/DC conversion, the method comprising the steps of:

- selecting of a capacitive or an inductive mode in order to determine a switching sequence,
- performing the switching sequence to provide an idle phase, an energy storage phase and an energy transfer phase,  
wherein a set of switches (~~S1, S2, S3, S4~~) is operated in the capacitive mode and a sub-set (~~S2, S4~~) of the set of switches is operated in the inductive mode.

10. (*Currently Amended*) The method of claim 9, whereby the capacitive or inductive mode is selected by coupling of a selection terminal (~~V<sub>in</sub>~~) to a one of first and second predefined voltages.

11. (*Currently Amended*) The method of claim 10, wherein the first predefined voltage is a voltage provided by a voltage source (~~108~~) in the capacitive mode and wherein the second predefined voltage is ground potential in the inductive mode.